

REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Office Action dated May 30, 2003 is respectfully requested. Claims 1-44 are currently pending and have been rejected.

Claim 35 has been amended to provide proper antecedent basis. Specifically, the word “data” has been added to provide consistency. Claim 37 has been amended to provide proper antecedent basis by consistently reciting “at least a first telecommunications signal.” Claim 44 has been amended to correct a typographical error by removing the word “apparatus” and effectively replacing the word “apparatus” with the word “method.”

Rejections under 35 U.S.C. § 112

The Examiner has rejected claims 37-44 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner has also rejected claims 35 and 36 under 35 U.S.C., first paragraph, as failing to comply with the enablement requirement.

With regards to claims 37-44, the Examiner has stated that the claims contain subject matter which was not described in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Examiner specifically refers to, in the Office Action dated May 30, 2003, a limitation in claim 37 of “receiving the first payload at the cross connect units; removing the first telecommunications signal from the first payload and inserting the first telecommunications signal in a second payload.” The Examiner acknowledges that the exact wording is found in the Specification, but states that the Specification never goes into detail nor explains why someone would perform this step.

It is unclear to the Applicants why the Examiner believes that claims 37-44 contain subject matter which was not described in such a way as to reasonably convey to one skilled in

the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The Applicants believe that the steps of receiving a first payload, removing a first telecommunications signal from the first payload, and inserting the first telecommunications signal in a second payload clearly convey to one skilled in the relevant art that the Applicants have possession of the claimed invention. In further support of the limitations of claim 37, the Applicants submit that the limitations are described in the Specification, as for example beginning on page 8 of the Specification, at line 11. The Applicants respectfully submit that there is no requirement that the Specification explain "why someone would perform this step." However, the Applicants note that the invention generally provides a flexible cross-connect system (Specification, on page 7, at lines 28-30), and that "someone" would perform the step(s) identified by the Examiner to provide a flexible cross-connect system.

Section 2163 of the Manual of Patent Examining Procedure (MPEP), heading III. A. states that "A description as filed is presumed to be adequate unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut this presumption. See, e.g., *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 f.2d at 263, 191 USPQ at 97. In rejecting a claim, **the examiner must set forth express finding of fact regarding the above analysis which support the lack of written description conclusion.**" (Emphasis added) Heading III.A. of Section 2163 of the MPEP further states that "These findings should ... (B) Establish a prima facie case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed...." (Emphasis added) It is respectfully submitted that the Examiner has neglected to establish a prima facie case.

In view of the above, the Applicants respectfully request that the rejections of claims 37-44 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement be withdrawn.

Claims 35 and 36 have been rejected by the Examiner under 35 U.S.C. § 112, first paragraph, for containing subject matter which was not described in the Specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner has noted that claim 35 discloses a “plurality of clock recoverable interface cards...; a plurality of clocked interface cards,” and acknowledged that the claim limitations are mentioned on page 4 of the Specification. However, the Examiner alleges that the limitations are not explained in any detail. The Applicants submit that clock recoverable interface cards are described throughout the Specification, as for example on page 12 at lines 5-20 and on page 15, at lines 11-26. Clocked interface cards are also described throughout the Specification, as for example on page 13, at lines 15-30. As such, the Applicants respectfully request that the Examiner’s rejections of claims 35 and 36 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1-4, 7, 9, 10, 17, 18, 22, and 35 under 35 U.S.C. § 102(e) as being anticipated by Smith (U.S. Patent No. 6,188,686).

Independent claim 1 requires an apparatus which includes a plurality of interface cards, a cross-connect unit, a control unit, and a backplane forming parallel data buses. The parallel data buses include a clock recovered parallel data bus that provides connectivity between each of a plurality of interface cards, the cross-connect unit, and the control unit. Data streams are transmitted between the plurality of interface cards and the cross-connect unit over the clock recovered parallel data bus without synchronization information.

In his rejections, the Examiner has stated that Smith discloses the apparatus as claimed in claim 1. The Applicants respectfully submit that Smith does not teach of a clock recovered parallel data bus, and does not teach of transmitting data streams without synchronization information. While Smith appears to show data lines which provide connections (as for example in Fig. 2 of Smith), there is no teaching that such data lines are part of a clock recovered parallel

data bus. Further, although the Applicants acknowledge that Smith mentions that data units may operate asynchronously (Smith, column 5, line 55), there is no teaching or suggestion that data streams are transmitted over a clock recovered parallel data bus or other bus without synchronization information. Contrary to the Examiner's statement in the Office Action dated May 30, 2003, it is respectfully submitted that data is not necessarily sent without synchronization information in a system that is "capable" of operating in asynchronous mode. Accordingly, claim 1 is believed to be allowable over Smith for at least these reasons.

Claims 2-34 each depend either directly or indirectly from independent claim 1, and are therefore each believed to be allowable over the art of record for at least the reasons set forth above with respect to independent claim 1. Each of these independent claims recites additional limitations which, when considered in view of claim 1, are believed to further distinguish the claimed invention over the art of record. By way of example, dependent claim 10 recites a first set of interface cards that are a first type and a second set of interface cards that are a second type. The first set can receive data streams up to a first rate and transmit data streams to a cross connect unit at the first rate, and the first set can receive data streams up to a second rate and transmit data streams to a cross connect unit at the second rate. Hence, at least two types of interface cards may be included in an apparatus as claimed in claim 10. The Applicants submit that Smith does not teach of allowing two types of interface cards, each arranged to receive and transmit data streams at their own rates, in an apparatus. As the Examiner has pointed out in the Office Action dated May 30, 2003, Smith discloses ATM channels which may have a constant bit rate, a variable bit rate, an available bit rate, or an unspecified bit rate (Smith, column 13, lines 60-66). However, there is no indication in Smith that different interface cards in an apparatus use different rates. On the contrary, Smith appears to teach that data units of an apparatus use the same rates (Smith, column 16, lines 36-55). Accordingly, claim 10 is believed to be allowable over the art of record for at least this additional reason.

Independent claim 35 requires that an apparatus includes a plurality of clock recoverable interface cards for transmitting and receiving data streams having no synchronization information and a plurality of clocked interface cards for transmitting and receiving data streams including data and synchronization information. The apparatus also includes a backplane forming parallel

data buses including clock recovered parallel data buses and clocked parallel buses that provide connectivity between the interface cards, a cross-connect unit, and a control unit.

It is respectfully submitted that Smith simply does not appear to teach or show an apparatus with a plurality of clock recoverable interface cards for transmitting and receiving data streams having no synchronization information and a plurality of clocked interface cards for transmitting and receiving data streams including data and synchronization information. As mentioned above, Smith states that data units may operate asynchronously (Smith, column 5, line 55). However, there is no teaching or remote suggestion of a plurality of clock recoverable interface cards and a plurality of clocked interface cards. Further, Smith does not appear to teach of an apparatus which includes both a plurality of clock recoverable interface cards for transmitting and receiving data streams having no synchronization information and a plurality of clocked interface cards for transmitting and receiving data streams including data and synchronization information. Instead, Smith appears to teach that all data units are either operable synchronously or operable asynchronously, and does not teach or suggest that some data units operate asynchronously while other operate synchronously (Smith, column 5, lines 55-65). Since Smith does not appear to teach of both a plurality of clock recoverable interface cards for transmitting and receiving data streams having no synchronization information and a plurality of clocked interface cards for transmitting and receiving data streams including data and synchronization information, claim 35 is believed to be allowable over Smith for at least this reason.

The Applicants also submit that while claim 35 requires that parallel data buses include clock recovered parallel data buses and clocked parallel data buses, Smith does not teach of either clock recovered parallel data buses or clocked parallel data buses. As such, claim 35 is believed to be allowable over Smith for at least this additional reason. Since claim 36 depends directly from independent claim 35, claim 36 is believed to be allowable over Smith for at least the reasons set forth above with respect to claim 35.

Rejections under 35 U.S.C. § 103

The Examiner has rejected claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Smith (U.S. Patent No. 6,188,686) in view of Demiray et al. (U.S. Patent No. 5,740,157). Claims 6 and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Lamarche et al. (U.S. Patent No. 6,414,953). Claims 11, 13, 15, 16, and 36 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith. Claims 12, 14, 20, 21, 23, and 24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Tarridec et al. (U.S. Patent No. 4,751,699). Claim 19 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Upp et al. (U.S. Patent No. 5,967,405). Claims 25-34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Kosugi et al. (U.S. Patent No. 5,189,410). Claims 37 and 40-44 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Smith in view of Madonna (U.S. Patent No. 5,737,320).

Independent claim 37 requires that a method for flexibly transmitting telecommunications signals includes receiving a first payload, removing a first telecommunications signal from the first payload and inserting the telecommunications signal in a second payload, and transmitting the second payload. The first and second payloads do not include synchronization information and are transmitted over a clock recovered parallel data bus formed in a backplane of a cross-connect apparatus.

With regards to claim 37, the Examiner has argued that Smith in view of Madonna teaches the claimed limitations. It is respectfully submitted that, as discussed above with reference to claim 1, Smith does not teach of signals or payloads which do not include synchronization information, and does not teach of transmitting such signals or any other signal over a clock recovered parallel data bus. Madonna also does not appear to teach of payloads which do not include synchronization information, or of a clock recovered parallel data bus. As such, claim 37 is believed to be allowable over the art of record for at least these reasons.

Madonna appears to teach of sending an empty packet from a first node to a second node, and inserting local circuit switched data pertaining to the second node into the empty packet

(Madonna, column 14, lines 13-54). Madonna also appears to teach of sending a full packet, full of information pertaining to a first node, from the first node to a second node, and extracting data from the payload at the second node (Madonna, from column 14 at line 55 to column 15 at line 7). In the Office Action dated May 30, 2003, the Examiner has argued that information extracted from a full packet may subsequently be placed into an empty packet. The information extracted from a full packet is information associated with an originating node (Madonna, column 14, lines 62-64), and the information placed into an empty packet pertains to a receiving node (Madonna, column 14, lines 29-32). Since Madonna appears to teach that a first node, when sending a full packet, includes only information relating to the first node (in the packet) and also appears to teach that a second node, when receiving an empty packet, only places information relating to the second node in the packet, information extracted from the full packet by the second node does not pertain to the second node and, hence will not be written by the second node into an empty packet. As such, the Applicants respectfully submit that neither Smith nor Madonna, either alone or in combination, teaches of removing a first telecommunications signal from a first payload and inserting the first telecommunications signal in a second payload before transmitting the second payload. As such, claim 37 is further believed to be allowable over the art of record for at least this additional reason.

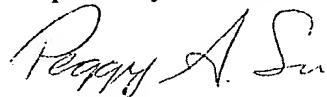
Claims 38-44 each depend either directly or indirectly from independent claim 37 and are, hence, each believed to be allowable over the art of record for at least the reasons set forth above with respect to claim 37.

In view of the above, the Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

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If any fees are due in connection with the filing of this amendment, the Commissioner is authorized to charge such fees to Deposit Account 50-1652 (Order No. CISCP793).

Respectfully submitted,



Peggy A. Su
Registration No. 41,336

RITTER, LANG & KAPLAN LLP
12930 Saratoga Ave., Suite D1
Saratoga, CA 95070
Tel: (408) 446-8696
Fax: 408-446-8691